

Strand: Number Sense and Numeration

Grade: 8

School: Beryl Ford

Lesson Goal	Diagnostic and introduction to multiplication involving two fractions
Curriculum Expectations	<ul style="list-style-type: none">- Solve problems involving addition, subtraction, multiplication, and division with simple fractions- Represent the multiplication and division of fractions, using a variety of tools and strategies
Big Idea(s)	<ul style="list-style-type: none">- Operational sense

3 Part Lesson Plan		Materials
Getting Started (Minds On...)		
<p>Instructional Grouping: Small groups</p> <ul style="list-style-type: none">- The following questions are put on the lcd screen for small groups to solve: <p>What does a group of 20 look like?</p> <p>What is $\frac{1}{2}$ of 20?</p> <p>What is $\frac{1}{4}$ of 20?</p> <p>What is $\frac{1}{5}$ of 20?</p> <p>What is $\frac{1}{10}$ of 20?</p> <p>What is $\frac{1}{20}$ of 20?</p> <p>What is $\frac{1}{2}$ of $\frac{1}{20}$?</p> <p>How do you know? In how many ways can you show your answers to the questions above?</p> <ul style="list-style-type: none">- A variety of manipulatives are available for students to choose from		<ul style="list-style-type: none">- Markers- Chart paper- Snap cubes- Cuisenaire rods- Integer tiles- Grid paper- scissors
Working On It (Action!)		
<p>Instructional Grouping: Small groups</p> <ul style="list-style-type: none">- Working in the same groups, students solve the following problem: <p>You are being asked to pay a total of \$60 for your graduation events. $\frac{1}{3}$ of the money will go towards the graduation ceremony and $\frac{2}{3}$ of it will go towards the Wonderland trip.</p> <p>Of the $\frac{1}{3}$ that will be spent on the ceremony, $\frac{1}{4}$ of it will be spent on drinks, $\frac{1}{2}$ on dinner and dessert, and $\frac{1}{4}$ on decorations. How much is being spent on each item? Show your work.</p> <p>$\frac{4}{5}$ of the Wonderland money is for admission. The remainder is for bussing. How much is being spent and how do you know?</p>		<ul style="list-style-type: none">- Chart paper- Markers- Snap cubes- Cuisenaire rods- Integer tiles- Grid paper
Reflecting and Connecting (Consolidate/Debrief)		
<p>Debrief Strategy: Gallery Walk</p> <ul style="list-style-type: none">- In gallery walk fashion, groups rotate to other groups. Each group has one sticky note where they write a “treasure” they can take from another group’s work. Groups share with the class a treasure they have found.- Teacher continues debrief by asking the following questions: <p>How do you represent a whole number as a fraction? What do the</p>		<ul style="list-style-type: none">- Sticky notes

<p>numerator and denominator represent?</p> <p>What does 60 look like as a fraction? (Ans. 60/1 <i>not</i> 60/60)</p> <p>What does the word ‘of’ mean in the problem?</p> <ul style="list-style-type: none"> - Using student work, the teacher poses the following questions: <p>$\frac{1}{4}$ of $\frac{1}{3}$ = \$5 <i>What fraction of the original \$60 is this?</i> (Ans. 1/12)</p> <p>$\frac{1}{2} \times \frac{1}{3}$ = \$10 <i>What fraction of the original \$60 is this?</i> (Ans. 1/6)</p> <p>$\frac{1}{4}$ of $\frac{1}{3}$ = \$5 <i>What fraction of the original \$60 is this?</i> (Ans. 1/12)</p> <ul style="list-style-type: none"> - Students are asked to look for a pattern between the fractions. 	
Follow-up	
For homework: How would you visually represent $\frac{1}{4}$ of $\frac{1}{3}$?	